AMENDMENTS TO THE CLAIMS

Please amend claims 4, 7, 8, 17, 18, 26, and 34, and cancel claim 42. No new matter is believed to be introduced by the aforementioned amendments and new claims. The following listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. **(Previously Presented)** An optoelectronic transceiver comprising:

a data transmit line coupled to an optical source;

a data receive line coupled to an optical detector, where the optical detector has first and second operating modes such that in the first operating mode, the optical detector is configured to operate in connection with LED-generated optical signals, and in the second operating mode, the optical detector is configured to operate in connection with laser-generated optical signals;

a serial communication bus distinct from the data transmit line and data receive line;

a microprocessor coupled to the serial communication bus, the microprocessor corresponding to a serial address; and

an optical driver coupled to the optical source, the microprocessor providing a control signal for adjusting a swing amplitude of the optical driver in accordance with one or more commands received by the microprocessor via the serial communication bus.

2. **(Original)** The optoelectronic transceiver of claim 1, wherein the optical source is supplied with a bias current, the microprocessor providing a control signal for adjusting the bias current of the optical source in accordance with the one or more commands received by the microprocessor via the serial communication bus.

3. **(Original)** The optoelectronic transceiver of claim 2, wherein the optical detector has an electrical bandwidth, the microprocessor providing a control signal for adjusting the electrical bandwidth of the optical detector in accordance with one or more commands received by the microprocessor via the serial communication bus.

4. **(Currently Amended)** The optoelectronic transceiver of claim 3, wherein the optical detector has an electrical bandwidth, and further comprising:

a plurality of filtering components, the microprocessor providing control signals to the filtering components for coupling to the ~~optical source or the~~ optical detector in accordance with one or more commands received by the microprocessor via the serial communication bus.

5. **(Original)** The optoelectronic transceiver of claim 2, wherein the optical detector has an electrical bandwidth, and further comprising:

a plurality of filter components, the microprocessor providing control signals to the filter components for coupling to the optical detector in accordance with one or more commands received by the microprocessor via the serial communication bus.

6. **(Original)** The optoelectronic transceiver of claim 1, wherein the optical detector has an electrical bandwidth, the microprocessor providing a control signal for adjusting the electrical bandwidth of the optical detector in accordance with one or more commands received by the microprocessor via the serial communication bus.

7. **(Currently Amended)** The optoelectronic transceiver of claim 6, wherein the optical detector has an electrical bandwidth, and further comprising:

a plurality of filter components, the microprocessor providing control signals to the filter components for coupling to the ~~optical source or the~~ optical detector in accordance with one or more commands received by the microprocessor via the serial communication bus.

8. **(Currently Amended)** The optoelectronic transceiver of claim 1, wherein the optical detector has an electrical bandwidth, and further comprising:

a plurality of filter components, the microprocessor providing control signals to the filter components for coupling to the ~~optical source or the~~ optical detector in accordance with one or more commands received by the microprocessor via the serial communication bus.

9. **(Original)** The optoelectronic transceiver of claim 1, wherein the serial communication bus is a two-wire bus.

10. **(Original)** The optoelectronic transceiver of claim 1, wherein the control signal is an output voltage from the microprocessor.

11. **(Original)** The optoelectronic transceiver of claim 1, wherein the control signal is a voltage from a resistor network wherein the resistor network receives an output voltage from the microprocessor.

12. **(Original)** The optoelectronic transceiver of claim 11, wherein the resistor network includes a transistor.

13. **(Original)** The optoelectronic transceiver of claim 1, wherein the optical source is a laser diode.

14. **(Original)** The optoelectronic transceiver of claim 1, wherein the optical driver is an integrated circuit.

15. **(Previously Presented)** An optoelectronic transceiver comprising:

a data transmit line coupled to an optical source;

a data receive line coupled to an optical detector, where the optical detector has first and second operating modes such that in the first operating mode, the optical detector is configured to operate in connection with LED-generated optical signals, and in the second operating mode, the optical detector is configured to operate in connection with laser-generated optical signals;

a serial communication bus distinct from the data transmit line and data receive line; and

a microprocessor coupled to the serial communication bus, the microprocessor corresponding to a serial address;

the optical source supplied with a bias current, the microprocessor providing a control signal for adjusting the bias current of the optical source in accordance with one or more commands received by the microprocessor via the serial communication bus.

16. **(Original)** The optoelectronic transceiver of claim 15, wherein the optical detector has an electrical bandwidth, the microprocessor providing a control signal for adjusting the electrical bandwidth of the optical detector in accordance with one or more commands received by the microprocessor via the serial communication bus.

17. **(Currently Amended)** The optoelectronic transceiver of claim 16, wherein the optical detector has an electrical bandwidth, and further comprising:

a plurality of filter components, the microprocessor providing control signals to the filter components for coupling to the ~~optical source or the~~ optical detector in accordance with one or more commands received by the microprocessor via the serial communication bus.

18. **(Currently Amended)** The optoelectronic transceiver of claim 15, wherein the optical detector has an electrical bandwidth, and further comprising:

a plurality of filter components, the microprocessor providing control signals to the filter components for coupling to the ~~optical source or the~~ optical detector in accordance with one or more commands received by the microprocessor via the serial communication bus.

19. **(Original)** The optoelectronic transceiver of claim 15, wherein the serial communication bus is a two-wire bus.

20. **(Original)** The optoelectronic transceiver of claim 15, wherein the control signal is an output voltage from the microprocessor.

21. **(Original)** The optoelectronic transceiver of claim 15, wherein the control signal is a voltage from a resistor network wherein the resistor network receives an output voltage from the microprocessor.

22. **(Original)** The optoelectronic transceiver of claim 21, wherein the resistor network includes a transistor.

23. **(Original)** The optoelectronic transceiver of claim 15, wherein the optical source is a laser diode.

24. **(Original)** The optoelectronic transceiver of claim 15, wherein the optical driver is an integrated circuit.

25. **(Previously Presented)** An optoelectronic transceiver comprising:

a data transmit line coupled to an optical source;

a data receive line coupled to an optical detector;

a serial communication bus distinct from the data transmit line and data receive line; and

a microprocessor coupled to the serial communication bus, the microprocessor corresponding to a serial address;

the optical detector has an electrical bandwidth, the microprocessor providing a control signal for adjusting the electrical bandwidth of the optical detector in accordance with one or more commands received by the microprocessor via the serial communication bus, the optoelectronic transceiver capable of interoperating with a first other transceiver utilizing laser based transmitters and respective receivers and the optoelectronic transceiver also capable of interoperating with a second other transceiver utilizing LED based transmitters and respective receivers.

26. **(Currently Amended)** The optoelectronic transceiver of claim 25, wherein the optical detector has an electrical bandwidth, and further comprising:

a plurality of filter components, the microprocessor providing control signals to the filter components for coupling to the ~~optical source or the~~ optical detector in accordance with one or more commands received by the microprocessor via the serial communication bus.

27. **(Original)** The optoelectronic transceiver of claim 25, wherein the serial communication bus is a two-wire bus.

28. **(Original)** The optoelectronic transceiver of claim 25, wherein the control signal is an output voltage from the microprocessor.

29. **(Original)** The optoelectronic transceiver of claim 25, wherein the control signal is a voltage from a resistor network wherein the resistor network receives an output voltage from the microprocessor.

30. **(Original)** The optoelectronic transceiver of claim 29, wherein the resistor network includes a transistor.

31. **(Original)** The optoelectronic transceiver of claim 25, wherein the optical detector is a pin diode or Avalanche Photo Diode (APD).

32. **(Previously Presented)** The optoelectronic transceiver of claim 25, wherein the optoelectronic transceiver further comprises a transistor by way of which a bias current is supplied to the optical source.

33. **(Original)** The optoelectronic transceiver of claim 32, wherein the transistor receives the control signal.

34. **(Currently Amended)** An optoelectronic transceiver comprising:

a data transmit line coupled to an optical source;

a data receive line coupled to an optical detector;

a serial communication bus distinct from the data transmit line and data receive line;

a microprocessor coupled to the serial communication bus, the microprocessor corresponding to a serial address;

the optical detector has an electrical bandwidth,

and a plurality of filter components, the microprocessor providing control signals to the filter components for coupling to the ~~optical source or the~~ optical detector in accordance with one or more commands received by the microprocessor via the serial communication bus, the optoelectronic transceiver capable of interoperating with a first other transceiver utilizing laser based transmitters and respective receivers and the optoelectronic transceiver also capable of interoperating with a second other transceiver utilizing LED based transmitters and respective receivers.

35. **(Original)** The optoelectronic transceiver of claim 34, wherein the serial communication bus is a two-wire bus.

36. **(Original)** The optoelectronic transceiver of claim 34, wherein the control signal is an output voltage from the microprocessor.

37. **(Original)** The optoelectronic transceiver of claim 34, wherein the control signal is a voltage from a resistor network wherein the resistor network receives an output voltage from the microprocessor.

38. **(Original)** The optoelectronic transceiver of claim 37, wherein the resistor network includes a transistor.

39. **(Original)** The optoelectronic transceiver of claim 34, wherein the plurality of filter components includes resistive and capacitive devices.

40. **(Original)** The optoelectronic transceiver of claim 34, wherein the plurality of filter components includes transistors.

41. **(Original)** The optoelectronic transceiver of claim 40, wherein the transistors are field effect transistors.

42. **(Cancelled)**

43. **(Previously Presented)** An optoelectronic transceiver comprising:

a data transmit line coupled to an optical source;

a data receive line coupled to an optical detector;

a serial communication bus distinct from the data transmit line and data receive line; and

a microprocessor coupled to the serial communication bus, the microprocessor corresponding to a serial address;

the optoelectronic transceiver capable of interoperating with a first other transceiver utilizing laser based transmitters and respective receivers and the optoelectronic transceiver also capable of interoperating with a second other transceiver utilizing LED based transmitters and respective receivers.

44. **(Previously Presented)** The optoelectronic transceiver of claim 43, wherein the optoelectronic transceiver can transmit and receive data at rates ranging from 16 Mb/s to 1.25 Gb/s.

45. **(Previously Presented)** The optoelectronic transceiver of claim 43, wherein the optoelectronic transceiver is compatible with signals having optical power levels in a range from about -3 dBm to about -15 dBm.

46. **(Previously Presented)** The optoelectronic transceiver of claim 34, wherein the optoelectronic transceiver is compatible for communication with transceivers that employ an LED as an optical emitter, and with transceivers that employ a laser as an optical emitter.